

Appendix D

Biological Resources

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Sensitive Natural Communities

***Achnatherum speciosum* - Herbaceous Alliance.** Desert needlegrass (*Achnatherum speciosum*) is a native, perennial bunchgrass that occurs at a relative coverage of more than 50 percent in this herbaceous alliance. Emergent trees and shrubs may be present at a lower coverage. This alliance is found on lower slopes, in canyons, and on sandy or gravelly alluvial fans. Small stands are found in Antelope Valley in the Mojave Desert, but heavy grazing and exclusion from non-native annual grasses have likely reduced its range to mid- to upper-elevation desert areas.

***Cylindropuntia bigelovii* - Shrubland Alliance.** The *Cylindropuntia bigelovii* shrubland alliance exists where teddy-bear cholla (*Cylindropuntia bigelovii*), a distinctive cholla that grows up to 5 feet tall, has a relative cover of more than 50 percent in the shrub layer. Other shrubs may be present at lower coverages, and the herbaceous layer is open with a cryptobiotic crust and seasonal annuals. This alliance is found on alluvial fan deposits and gentle to moderate, south- or southwest-facing slopes of rocky highlands with soils ranging from coarse sands to loams. Stands occupy the warmest southerly sections of the Mojave Desert.

One stand of teddy-bear cholla was observed within the Project footprint on the southern end of the Newberry Mountains. It was located on a south-facing slope, approximately 1.8 miles northeast of the intersection of Old Government Road and Powerline Road.

***Ericameria paniculata* – Shrubland Alliance.** The *Ericameria paniculata* shrubland alliance is dominated by black-banded rabbitbrush (*Ericameria paniculata*), a medium-sized shrub. Brittlebush, ephedra, catclaw acacia, and other shrubs may be present at lower coverages. The shrub canopy may be closed and the herbaceous layer is open with seasonal annuals. This alliance occurs in intermittently flooded washes, and soils are sandy and usually well-drained. It is common in medium and large washes where flooding events occur every few years. It can be found from 300 to 3,600 feet in elevation.

***Prunus fasciculata* – *Salazaria mexicana* – Shrubland Alliance.** The *Prunus fasciculata* shrubland alliance is characterized by a total cover of 25 percent or more of desert almond (*Prunus fasciculata*), a winter-deciduous shrub. Desert almond can grow up to 9 feet tall and has a deep tap root that allows it to survive minor flood events. This alliance occurs in washes, arroyos, canyons, and on disturbed upland sites on granitic and calcareous substrates. Other shrubs, including catclaw acacia, may occur, but desert almond provides at least twice the cover of other species. This alliance receives higher precipitation and lower temperatures than other vegetation types and is often found in upper washes and canyons at elevations up to 6,200 feet. This shrubland alliance was entirely restricted to the Ord Mountains.

***Suaeda moquinii* – Shrubland Alliance.** The *Suaeda moquinii* shrubland alliance is dominated by bush seepweed (*Suaeda moquinii*), a small, short-lived shrub. Other shrubs, including saltbush, may be present, and the herbaceous layer is sparse to intermittent. This alliance is found in bajadas, playas, and toe slopes adjacent to alluvial fans at elevations from sea level to 4,200 feet. Soils are deep and saline or alkaline. Bush seepweed appears opportunistic in occupying roadsides and other recently disturbed areas. The USFWS National Wetland Inventory recognizes bush seepweed as a facultative plant species. This shrubland alliance was observed in two stands in Fifteenmile Valley within the BRSA.

***Yucca brevifolia* – Woodland Alliance.** The *Yucca brevifolia* woodland alliance is indicated by the presence of Joshua tree, an evergreen, branching tree that can reach 45 feet in height, with a coverage of one (1) percent or more. This alliance is found on gentle slopes and ridges from 2,500 to 6,000 feet in elevation.

Soils are generally coarse sands, very fine sands, gravel, or sandy loams. The alliance may often include other tree species, including California juniper and singleleaf pinyon pine, at low cover and can include white bur-sage (*Ambrosia dumosa*), creosote, and Mojave yucca (*Yucca schidigera*), among other species in the shrub and grass layers. The shrub layer and herbaceous layer are open to intermittent because of the relatively low cover of the tree canopy. This woodland alliance was observed in various stretches in the BRSA.

Riparian vegetation is evaluated here as a sensitive natural community because of its biological productivity, and the habitat it provides for multiple wildlife species, including special-status species. Riparian vegetation may occur along drainages that typically are subject to seasonal flooding. Limited riparian habitat is present in small, isolated stands within the BRSA. Less than 0.1 acres of CDFW-jurisdictional riparian vegetation was mapped within the BRSA and occurs in two isolated stands. One stand was located in Fenner Valley, in an unnamed wash along Powerline Road and approximately 9.4 miles east of Foshay Pass. The other stand was located in the Dead Mountains, in an unnamed wash located approximately 938 feet southwest of the intersection of Powerline Road and Old Government Road (SCE, 2018).

Sensitive Status Plant Species

Appressed muhly. Appressed muhly (*Muhlenbergia appressa*) is a CRPR 2B.2 annual grass that occurs on rocky slopes and open canyon bottoms in coastal scrub, Mojavean desert scrub, and valley/foothill grasslands from 65 feet in elevation. Within the BRSA, appressed muhly was observed in the Providence Mountains, California. A population of 327 individuals was observed on the steep, rocky, north-facing slopes and canyons of Foshay Pass, approximately 6 miles west of Essex Road in Clipper Valley. It could occur in project footprint areas anywhere in the vicinity.

Clokey's Cryptantha. Clokey's cryptantha (*Cryptantha clokeyi*) is a CRPR 1B.2 annual herb in the waterleaf family that is endemic to the Mojave Desert in California, although it may occur in other areas where conditions are favorable, and inhabits Mojavean desert scrub on rocky to gravelly slopes and ridges at elevations from 2,300 to 4,500 feet. Approximately 122 Clokey's cryptantha individuals were observed on rocky, south- and southwest-facing slopes in the BRSA in California. One population was observed near Chimney Rock in the Granite Mountains, approximately 0.5 miles northeast of the dry lakebed of Rabbit Lake. Another population was observed on a small, unnamed, rocky south-facing slope in North Lucerne Valley, California, approximately 0.8 miles east of the intersection of Powerline Road and Huff Road.

Coves' Cassia. Coves' cassia (*Senna covesii*) is a CRPR 2B.2 perennial herb in the legume family that occurs on dry, sandy desert washes and on slopes in the Sonoran desert scrub of Southern California, southern Nevada, Arizona, southwestern New Mexico, and northern Baja California at elevations from 1,080 to 2,500 feet. Approximately 298 individuals of Coves' cassia were observed in the northeastern section of the BRSA in Eldorado Valley, Nevada. This species was found on dry rocky slopes and desert washes along the Eldorado-Mohave 500 kV Transmission Line and west of Veterans Memorial Highway.

Johnson's Bee-Hive Cactus. Johnson's bee-hive cactus (*Sclerocactus johnsonii*) is a CRPR 2B.2 perennial stem succulent in the cactus family that occurs in granite substrates of Mojavean desert scrub at elevations between 1,600 to 4,000 feet. A population of 25 Johnson's bee-hive cactus was observed in the northeastern section of the BRSA in Eldorado and Piute Valleys in Nevada. This species was identified between the community of Searchlight, Nevada, and Steel Tower Transmission Line Road along the Eldorado-Mohave 500 kV Transmission Line, west of Veterans Memorial Highway.

Matted Cholla. Matted cholla (*Grusonia parishii*) is a CRPR 2B.2 perennial stem succulent in the cactus family that occurs in sandy, rocky substrates of Joshua tree woodland, Mojavean desert scrub, and Sonoran desert scrub at elevations from 1,000 to 5,000 feet. Approximately 399 matted cholla individuals

were observed in the northeastern section of the BRSA in Eldorado Valley and Piute Valley. This species was observed from the community of Cal-Nev-Ari, Nevada to the southern edge of Eldorado Valley Road along the Eldorado-Mohave 500 kV Transmission Line. Additional matted cholla individuals were observed approximately 3 miles southwest of Homer Mountain in Fenner Valley, California, along the Eldorado-Mohave 500 kV Transmission Line.

Mojave Menodora. Mojave menodora (*Menodora spinescens* var. *mohavensis*) is a BLM sensitive species and a CRPR 1B.2 perennial deciduous shrub in the olive family that occurs in andesite substrates of rocky desert hillsides and canyons of Mojavean desert scrub at elevations from 2,200 to 6,500 feet. Approximately 1,423 Mojave menodora individuals were observed growing in mountainous areas between the community of Lucerne Valley and Interstate 40 in the BRSA in California. One population was growing on rocky hillsides in the Rodman and Lava Mountains. Another population was observed growing on Iron Ridge, approximately 1 mile southwest of the Eldorado-Mohave 500 kV Transmission Line.

Mojave Milkweed. Mojave milkweed (*Asclepias nyctaginifolia*) is a CRPR 2B.1 perennial herb in the dogbane family that occurs in California, Arizona, New Mexico, and Nevada. It typically inhabits desert scrub and pinyon and juniper woodlands at elevations between 2,800 and 5,600 feet, though it may occur in other areas if conditions are favorable. Approximately 77 Mojave milkweed individuals were observed in the northeastern section of the BRSA in Piute Valley and near the community of Searchlight, Nevada. One of the populations was documented on the west side of Gulch Road, approximately 1.3 miles south of Nevada SR-164 in a small, unnamed side channel of the larger Piute Wash system. Another population was observed on the southern end of the Highland Range along Gas Pipeline Road, approximately 2.2 miles north of Nevada SR-164. These plants were seen in desert scrub habitat between Gas Pipeline Road to the east and the Eldorado-Mohave 500 kV Transmission Line to the west.

Narrow-Leaved Yerba Santa. Narrow-leaved yerba santa (*Eriodictyon angustifolium*) is a CRPR 2B.3 perennial evergreen shrub in the waterleaf family that occurs on slopes in pinyon juniper woodlands in California, Oregon, Washington, Arizona, Nevada, New Mexico, Colorado, and Idaho at elevations from 4,900 to 6,200 feet. In California, narrow-leaved yerba santa is only found in the New York and Granite Mountains. Within the BRSA, narrow-leaved yerba santa was observed in the Providence Mountains of California. A population of approximately 99 individuals was observed in an unnamed minor drainage, located north of the Lugo-Mojave 500 kV Transmission Line and east of Foshay Pass. This area is a transition zone from pinyon woodlands at higher elevations to desert scrub at lower elevations.

Playa Milk-Vetch. Playa mild-vetch (*Astragalus allochrous* var. *playanus*) is a CRPR 2B.2 perennial herb in the legume family that occurs in sandy soils in Mojavean desert scrub of California, Arizona, New Mexico, Texas, and Utah at elevations from 2,000 to 6,400 feet. One playa milk-vetch was observed at a location just outside of the community of Goffs, California. One individual was observed in an unnamed disturbed graded lot, approximately 0.1 miles west of Mountain Springs Road.

Rosy Two-Toned Beardtongue. Rosy two-toned beardtongue (*Penstemon bicolor* ssp. *roseus*) is a BLM sensitive species, an NNHP S3, and a CRPR 1B.2 perennial herb in the plantain family that occurs in gravelly, rocky, or disturbed soils in Mojavean desert scrub and Joshua tree woodland of California, Arizona, and Nevada at elevations from 2,300 to 5,000 feet. Twelve rosy two-toned beardtongue individuals were observed in the BRSA. A population of four individuals was found approximately 2.5 miles west of Veterans Memorial Highway along the Eldorado-Mohave 500 kV Transmission Line in Eldorado Valley, Nevada. A population of eight individuals was found in the BRSA in the foothills of the Providence Mountains and Foshay Pass in California.

Rusby's Desert-Mallow. Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*) is a CRPR 1B.2 perennial herb in the mallow family that occurs in Mojavean desert scrub and Joshua tree woodlands. It is endemic to California, and occurs at elevations from 3,200 to 5,400 feet. A population of approximately 2,149 Rusby's desert-mallow plants were observed in the BRSA in the foothills of the Providence Mountains and Foshay Pass in California.

Salina Pass Wild-Rye. Salina Pass wild-rye (*Elymus salina*) is a CRPR 2B.3 perennial rhizomatous herb in the grass family that occurs in rocky soils in pinyon and juniper woodlands in California, Arizona, Idaho, and Wyoming at elevations from 4,400 to 7,000 feet. Salina Pass wild-rye was observed in the Providence Mountains within the BRSA. A population of 1,055 Salina Pass wild-rye individuals was observed on the steep, north-facing slopes of Foshay Pass, California, approximately 6 miles west of Essex Road in Clipper Valley.

Short-Jointed Beavertail. Short-jointed beavertail (*Opuntia basilaris* var. *brachyclada*) is a BLM sensitive species and a CRPR 1B.2 perennial stem succulent in the cactus family that is endemic to California and occurs in Los Angeles and San Bernardino Counties. This cactus inhabits chaparral; Mojavean desert scrub; and Joshua tree, pinyon, and juniper woodlands ranging in elevation from 1,400 to 5,900 feet. A population of 122 short-joint beavertail individuals was found in the foothills west of the Mojave River along the Eldorado-Mohave 500 kV Transmission Line, south of the City of Hesperia, California.

Slender Cottonheads. Slender cottonheads (*Nemacaulis denudate* var. *gracilis*) is a CRPR 2B. 2 annual herb in the buckwheat family that occurs in coastal dunes, desert dunes, and Sonoran desert scrub in California, Arizona, and Baja California at elevations from 160 to 1,300 feet. A population of approximately 22 individuals was observed in the BRSA in California. The population was located along the southern edge of the Kelso Dunes, approximately 1 mile west of Kelso Dunes Road, off of Kelbaker Road.

Spiny Cliff-Brake. Spiny cliff-brake (*Pellaea truncata*) is a CRPR 2B. 3 perennial rhizomatous herb in the brake family that occurs in California, Arizona, Nevada, New Mexico, Utah, and Baja California at elevations from 4,000 to 7,000 feet. It inhabits the crevices and bases of granite or igneous rock in pinyon or juniper woodlands. Twenty-five spiny cliff-brake individuals were observed in the Providence Mountain of California within the BRSA. This population was observed on the north-facing slopes of Foshay Pass, approximately 6 miles west of Essex Road in Clipper Valley.

Spiny-Hair Blazing Star. Spiny-hair blazing star (*Mentzelia tricuspis*) is a CRPR 2B.1 annual herb in the loasa family that occurs in sandy, gravelly substrates on slopes and washes in the Mojavean desert scrub at elevations from 500 to 4,200 feet. Twenty spiny-hair blazing star individuals were observed in the eastern section of the BRSA, near the community of Laughlin, Nevada. One population was found in the eastern foothills of the Newberry Mountains in Nevada, approximately 1.8 miles northwest of Lugo Substation. The other population was observed in the Dead Mountains of California approximately 3.4 miles east of Veterans Memorial Highway along the Eldorado-Mohave 500 kV Transmission Line.

Sensitive Wildlife Species

Desert Bighorn Sheep. Desert bighorn sheep (*Ovis canadensis nelsoni*) is a BLM sensitive species and Fully Protected species that inhabits rocky, steep, and open terrain encompassing plateaus and springs. It occurs in desert mountain ranges in eastern California, much of Nevada, northwestern Arizona, New Mexico, southern Utah, southern Colorado, and Mexico. Desert bighorn sheep graze on a wide variety of plants, especially green, succulent grasses and forbs. They are often found in herds that are dependent on their proximity to water during the summer and may disperse during the winter. Desert bighorn sheep

are susceptible to livestock diseases, and entire herds may be lost to disease. They are also threatened by habitat loss and competition from feral ungulates and livestock for forage.

Within the BRSA, suitable habitat for desert bighorn sheep is limited to desert mountain ranges, including the Providence Mountains, the Dead Mountains, and the Newberry Mountains. Desert bighorn sheep were observed in 2016 within the BRSA in Nevada. In California, there are two recent CNDDDB occurrence records within 0.25 miles of the BRSA. One of these occurrences identified a stable herd consisting of 30 individuals and another herd consisting of five individuals. In addition, a stable herd of 25 individuals was documented within one (1) mile, and a herd of 30 individuals was documented within 5 miles of the BRSA. All herds are presumed to be extant. A pair of desert bighorn sheep was observed within the BRSA in the Newberry Mountains in Nevada near Nevada SR-163 during botanical surveys in May 2016. Desert bighorn sheep could occur in any of the mountainous or lower foothill portions of the ELM route.

Desert Tortoise. The Mojave species of desert tortoise (*Gopherus agassizii*) is federally and state listed as threatened. The species includes those animals living north and west of the Colorado River, primarily in the Mojave Desert of California and Nevada, with small portions of the range occurring in northwestern Arizona and southwestern Utah. Desert tortoise inhabits sandy flats, rocky foothills, alluvial fans, washes, and canyons with sandy or gravelly soils. Soils must be loose for den construction, but firm enough that dens do not collapse. Desert tortoise occurs at elevations ranging from below sea level to 7,300 feet, but most optimal habitat exists between 1,000 and 3,000 feet. Desert tortoises could occur nearly anywhere along the ELM route, excluding urbanized areas. Fourteen live desert tortoises were observed within the BRSA during protocol-level surveys in October 2016. These observations were documented in Clipper Valley, the Dead Mountains, and in the vicinity of the Kelso Dunes. All tortoises were observed north of I-40. This species also has numerous recent NNHP occurrence records within 0.25 miles of the BRSA.

Banded Gila Monster. The banded Gila monster (*Heloderma suspectum cinctum*) is a BLM sensitive species, a California Species of Special Concern, and a Nevada Protected Reptile. The banded Gila monster inhabits rocky crevices and steep canyons associated with high-elevation desert mountain ranges. It utilizes desert washes and associated riparian vegetation for foraging, where it feeds on young mammals, birds, reptiles, and eggs. Banded Gila monster generally winters at more elevated locations on rocky slopes, and spends summers in adjacent valleys or bajadas. Banded Gila monsters face some pressure from habitat loss, due to their restrictive habitat needs.

Habitat for banded Gila monster in the BRSA is limited to desert mountain ranges, including the Providence Mountains, the Dead Mountains, and the Newberry Mountains in California; and the McCullough Range and the Highland Range in Nevada. Three general locations within the Proposed Project area contain suitable habitat to support the banded Gila monster and have nearby recent CNDDDB or NNHP occurrence records.

A segment of the Lugo-Mohave 500 kV Transmission Line ROW within the Providence Mountains in the Mojave National Preserve in California contains suitable habitat to support the banded Gila monster. Specifically, this includes a majority of the work areas between Towers M114-T3 and M120-T3; helicopter landing zones (HLZs) near Towers M114-T4 through M121-T2; stringing sites associated with Towers M114-T4, M118-T1, and M118-T2; and all associated access roads.

Also, a segment of the Lugo-Mohave 500 kV Transmission Line ROW located in the Highland Range in Nevada contains suitable habitat to support the banded Gila monster. This includes work areas between Towers M7-T2 and M9-T3, and M36-T4 through M51-T4; helicopter LZs near Towers M36-T4, and M40-T1 through M53-T1; stringing sites associated with Towers M36-T4, M36-T4, M40-T1, M40-T1, M43-T3, M43-T3, M46-T3, M46-T3, and M49-T4; and all associated access roads.

A segment of the Eldorado-Mohave 500 kV Transmission Line ROW located in the Newberry Mountains in Nevada contains suitable habitat to support the banded Gila monster. This includes work areas between Towers M2-T2 and M11-T1; helicopter LZs near Towers M2-T3, M173-T2, M97-T2, M97-T1, and M5-T3 through M10-T5, as well as two LZs near the Mohave Substation; stringing sites associated with Towers M2-T1; M4-T1, M4-T1, M6-T2, M9-T3, and M9-T3; and all associated access roads.

Mojave Fringe-toed Lizard. Mojave fringe-toes lizard (*Uma scoparia*) is a BLM sensitive species and a California Species of Special Concern. It is known almost exclusively from California, primarily in San Bernardino and eastern Riverside Counties, but is also found to the north in southeastern Inyo County and historically to the west in northeastern Los Angeles County in California and in La Paz County in Arizona. Mojave fringe-toed lizard is found in arid, sandy, sparsely vegetated habitats. Sand dunes and sand fields are its primary habitat, although it can also be found on the margins of dry lakebeds and washes, and in or around isolated sand pockets against hillsides or at the margins of more extensive windblown sand systems. At a minimum, it requires scattered patches of fine, loose, windblown sand, into which it burrows to avoid predators and to thermoregulate. It has been documented in the CNDDDB within 0.25 miles of the BRSA in California. Suitable habitat for Mojave fringe-toed lizard is located within the Project area in California, including large dune or sandfield systems at the Kelso Dunes. Additionally, suitable habitat is found in smaller, scattered areas of windblown sand and adjacent shrublands where sand accumulates. Mojave fringe-toed lizard may occur in or near any suitable windblown sand habitat within its geographic range along the ELM route.

Loggerhead Shrike. Loggerhead shrike (*Lanius ludovicianus*) is a California Species of Special Concern and a USFWS bird of conservation concern. It is an uncommon year-round resident throughout most of the southern portion of its range, including southern California. In southern California, loggerhead shrikes are generally much more common in interior desert regions than along the coast. In the Mojave Desert it appears to be most numerous in flat or gently sloping foothills and bajadas, especially along the eastern slopes of mountainous areas. Loggerhead shrike begins breeding in February and may continue with raising a second brood as late as July. Loggerhead shrike inhabits lowland, open habitat types, including creosote scrub and other desert habitats, sage scrub, non-native grasslands, chaparral, riparian, croplands, and areas characterized by open scattered trees and shrubs. Fences, posts, or other potential perches are typically present. It feeds on large insects, small birds, amphibians, reptiles, and small rodents over open ground within areas of short vegetation, usually by impaling prey on thorns, wire barbs, or sharp twigs to cache for later feeding. Suitable habitat for loggerhead shrike occurs throughout the scrub habitats within the project area and they have been observed during surveys for adjacent projects. They may occur anywhere along the project route, except perhaps the higher elevation mountain sites.

Bendire's Thrasher. Bendire's thrasher (*Toxostoma bendirei*) is a BLM sensitive species, a USFWS bird of conservation concern, and a California Species of Special Concern. In California, Bendire's thrasher is known from scattered locations in Kern, Inyo, San Bernardino, and Riverside Counties, and with one occurrence in San Diego County. Bendire's thrasher inhabits open grassland, desert scrub, shrubland, or woodland with scattered trees. It is closely associated with plants of the *Yucca* and *Opuntia* genera, and it selectively occupies areas with higher densities of these plants. Bendire's thrasher typically avoids rocky outcrops or areas with steep slopes, apparently favoring flat areas with densely packed dirt. It forages mainly on the ground, feeding on arthropods, seeds, and berries. This species is known to inhabit elevations from 1,900 to 5,800 feet, but mostly occurs between 3,100 and 5,000 feet.

Limited suitable habitat within the Bendire's thrasher species' range is present along the Eldorado-Lugo 500 kV Transmission Line ROW in Fifteenmile Valley, west of Lucerne Valley in the western portion of the

Proposed Project area. This includes work areas between Towers M19-T1 and M21-T3, helicopter LZs near Towers M18-T4 and M22-T2, the Bear Valley staging area, and all associated access roads.

Limited suitable habitat within the Bendire's thrasher species' range is present along the Eldorado-Lugo 500 kV Transmission Line ROW in Lucerne Valley near Tower M36-T3, helicopter LZ near Tower M36-T3, stringing sites associated with Towers M36-T1 and M36-T1, and all associated access roads.

Suitable habitat for Bendire's thrasher is scattered along the Lugo-Mohave 500 kV Transmission Line ROW in the eastern Mojave Desert in California, spanning approximately between Towers M108-T3 through M160-T1, between helicopter LZs near Towers M108-T2 through M160-T2, between stringing sites associated with Towers M111-T3 through M157-T1, and all associated access roads.

Limited suitable habitat within the Bendire's thrasher species' range is also present along the Lugo-Mohave 500 kV Transmission Line ROW in Fifteenmile Valley, west of Lucerne Valley in the western portion of the Proposed Project area. This includes work areas between Towers M19-T1 and M21-T3, helicopter LZs near Towers M18-T4 and M22-T2, the Bear Valley staging area, and all associated access roads.

Golden Eagle. Golden eagle (*Aquila chrysaetos*) is a BLM sensitive species and a USFWS bird of conservation concern. It is federally protected under the Bald and Golden Eagle Protection Act (BGEPA) and is a fully protected species by the State of California. Golden eagle is a year-round resident throughout most of its range in the western U.S., including the project region. In the southwest, it is more common during winter when eagles that nest in Canada migrate south into the region. It breeds from late January through August, mainly during late winter and early spring in the California deserts. In the desert, nests are typically in steep, rugged terrain, often on sites with overhanging ledges, cliffs, or large trees that are used as cover. Golden eagles have also been documented nesting on transmission line towers. The golden eagle prefers mountainous or hilly terrain, and hunts over open spaces for small mammals, snakes, birds, and some carrion. It may vacate hot deserts during the summer months to nest in desert mountains, then return to winter in basin areas. In the desert, an individual's territory may extend as far as 119 square miles.

Suitable foraging habitat for the golden eagle is present throughout the Proposed Project area in California and Nevada. Nesting habitat is present within mountainous and hilly areas, and possibly also on transmission towers, as indicated by recent and historic CNDDDB and NNHP records of nests within 5 miles of the Proposed Project area. The entire Proposed Project area is located within suitable habitat, with the exception of urbanized areas that would lack a prey base.

Western Burrowing Owl. Western burrowing owl (*Athene cunicularia*) is a BLM sensitive species and a California Species of Special Concern. It is found across the Mojave and Colorado deserts of Inyo, eastern Kern, northern Los Angeles, San Bernardino, eastern Riverside, eastern San Diego, and Imperial Counties. Burrow sites occur in open, dry annual or perennial grasslands, deserts, and scrublands with low-growing vegetation. It nests in burrows that are often dug by small mammals, typically those of the California ground squirrel (*Otospermophilus beecheyi*). It can also occur in open areas of farmland, levee banks, and other disturbed or managed habitats where burrows or burrow-like refuges (e.g., small-diameter pipes, rock piles with voids, or similar hollow spaces) are present. It breeds from February 1 through August 30. Young are capable of full flight at six weeks of age and are fed by parents for approximately one year. Western burrowing owl is generally found at elevations from 200 to 5,000 feet.

The Project area is located within the breeding range of western burrowing owl in California and Nevada. Suitable habitat is present throughout the BRSA, and recent CNDDDB occurrences were documented within 5 miles of the BRSA in California. An active burrow was incidentally observed near the BRSA near the

community of Ludlow during special-status plant surveys conducted in the spring of 2016. Burrowing owl surveys were conducted in 2018.

Pallid Bat. The pallid bat (*Antrozous pallidus*) is a BLM sensitive species, a California Species of Special Concern, and a Nevada Protected Mammal. The pallid bat inhabits low desert shrublands, juniper woodlands, grasslands, and cottonwood-riparian zones through western North America. It is generally found at elevations between 100 and 7,000 feet. It needs open, dry areas with rocky areas for roosting. Pallid bat may also roost in abandoned, man-made structures.

Suitable roosting habitat for the pallid bat is distributed throughout the Proposed Project area in California and Nevada in the many rocky areas and mineshafts. The abundance of open, dry areas surrounding the rocky areas provide ample foraging habitat throughout the Proposed Project area, as well. Due to the large range size of this species, the entire Proposed Project area is located within suitable habitat for the species, with the exception of disturbed and developed areas that would lack a prey base.

American Badger. American badger (*Taxidea taxus*) is a California Species of Special Concern that occupies open, uncultivated habitats. It occurs primarily in grasslands, parklands, farms, and other treeless areas with friable soil and a supply of rodent prey. It is also found in forest glades and meadows, marshes, brushy areas, hot deserts, and mountain meadows. It is sometimes found at elevations up to 12,000 feet, but is usually found at elevations lower and warmer than those characterized by coniferous forests. American badgers are occasionally found in open chaparral (with less than 50-percent plant cover) and riparian zones. American badgers create burrows for sleeping and concealment, protection from weather, and natal dens. Burrows typically range from 4 to 10 feet in depth and 4 to 6 feet in width. Breeding generally occurs between December and February, and cubs are born between March and April.

The proposed project is located within the range of American badger. Suitable habitat occurs throughout the project area, and recent occurrences have been documented within 5 miles of the BRSA in California.

Ringtail. The ringtail (*Bassariscus astutus*) is fully protected in California. Suitable habitat for ringtail is forest and shrubland with rocky areas, usually near permanent water and riparian areas. It could occur anywhere along the project alignment, particularly in steep rocky shrubland habitats, where springs, seeps, or anthropogenic water sources may provide drinking water. Ringtails den and rear their cubs in rock crevices, hollow logs, abandoned burrows, or woodrat middens.

Desert Kit Fox. The desert kit fox (*Vulpes macrotis arsipus*) is protected under Title 14 of the California Code of Regulations § 460 which prohibits the take of certain furbearing mammals. It is found throughout the Mojave and Colorado Deserts in California and occupies desert scrub habitat. The desert kit fox inhabits desert habitat where there is an abundance of small mammals, its main food source. It lives in burrows and burrow complexes and requires soils with appropriate composition for burrow construction. Desert kit fox is nocturnal and generally forages within a few miles of its den. Desert kit fox is generally found at elevations of 1,300 feet to 6,000 feet. Suitable habitat for desert kit fox occurs throughout the project area.